

Bohn omnitrex SR1

Electronic Calculator
SLIDE RULE
Instruction Booklet

 **BOHN REX-ROTARY**
DIVISION OF VLN CORP.
444 PARK AVENUE SOUTH / NEW YORK, NEW YORK 10016



CONGRATULATIONS!

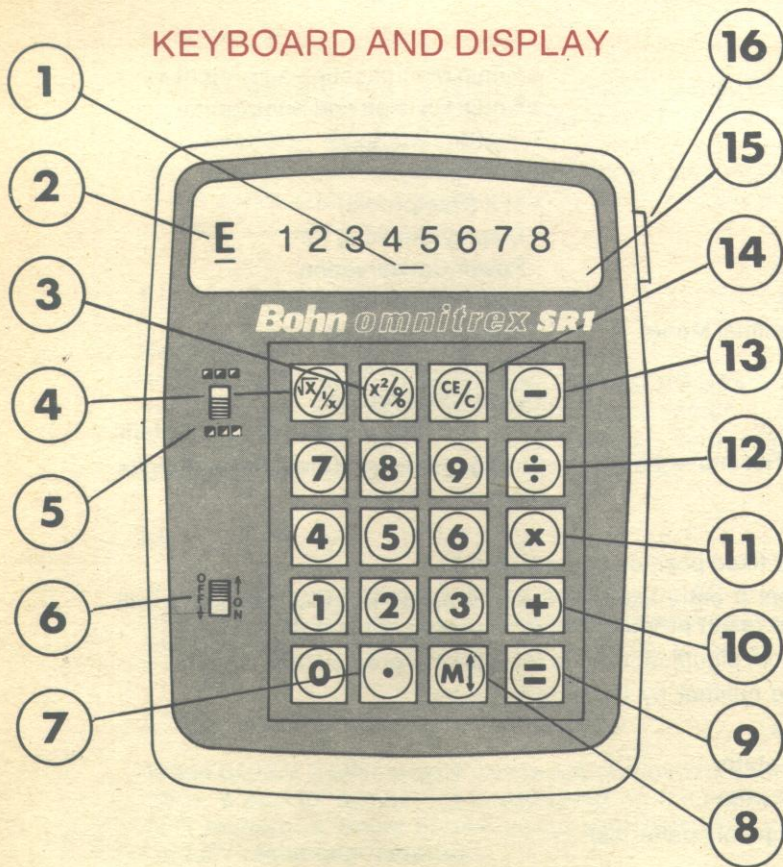
You are now the proud owner of one of the most advanced Electronic Slide Rules available today – the Bohn Omnitrex SR-1. This versatile electronic instrument not only silently performs the four basic arithmetic functions – addition, subtraction, multiplication, and division, but also performs more advanced calculations such as extracting square roots, squares, reciprocals, and percentages, all with true credit balance. The Bohn SR-1 also has a full function storage memory plus floating or fixed decimal.

The SR-1 comes complete with built in rechargeable batteries for a lifetime service and a combination AC adapter/charger.

The Bohn SR-1 is constructed of the most advanced space-age micro circuits combined with one of the largest, easiest to read displays available in a hand held calculator.

With proper care your Bohn SR-1 will provide dependable service for many years to come.

KEYBOARD AND DISPLAY



1. Display Blanking Indicator
2. Negative Overflow, Low Battery and Entry Error Indicator
3. Square/Percent Key
4. Square Root/Reciprocal Key
5. Selector Switch for Proper Mode
6. On-Off Switch
7. Numeric Entry Keyboard with Decimal Point
8. Memory and Constant Key
9. Equal Key
10. Addition Key
11. Multiplication Key
12. Division Key
13. Subtraction Key
14. Clear/Clear Entry Key
15. Display Panel
(8 digits maximum with decimal point)
16. Power Cord Socket

SPECIFICATIONS

Functions	<ul style="list-style-type: none">• Addition• Subtraction• Multiplication• Division• Raising to a power• Memory• Percentage Calculations• Constant in all functions• 5/4 Round-off (Fixed Decimal Mode)• Clear Entry/Total Clear• Mixed Calculations• True Credit Balance	<ul style="list-style-type: none">• Chain Multiplication and Addition• Chain Division and Subtraction• $\sqrt{\quad}$ (Square Root)• X^2 (Square)• $1/X$ (Reciprocal)• Display Blanking for Power Conservation• Low Battery Indicator• Entry Error Signal• Zero Suppression• Overflow Indicator• Full Underflow and Overflow System
Capacity	Addition and Subtraction Results — 8 digits Product — 8 digits Quotient — 8 digits	Storage Register (Constant) — 8 digits Memory — 8 digits
Decimal	Automatic floating logic or fixed position mode from 0-7.	
Overflow System	Display indicates E Symbol if entry exceeds 8 whole numbers. Result overflow will appear as \square symbol when result produces more than 8 significant digits.	
Underflow System	Display indicates the 8 most significant digits for answers greater than 8 digits.	
Negative Number	Display indicates negative number by (-) sign at far left.	
Display	Flourescent Display Tubes	
Components	Mos/LSI and silicon solid state	
Dimensions	1½" hight, 6½" long, 4¼" wide	
Weight	10 ozs. net (without rechargeable batteries)	

PRIOR TO USING

The rechargeable nickel cadmium batteries supplied with your Bohn Omnitrex SR-1 were completely charged at the factory, but may require additional charging before commencing battery operation due to discharging during shipping.

You may use the Omnitrex SR-1 while it is being charged. Just plug the charger/adaptor into an electrical outlet and the charger/adaptor cord into the power cord socket on the machine. A full charge should take about 12 hours.

HOW TO USE "AC" POWER

Turn ON/OFF switch to "OFF"

Plug the AC charger/adaptor into 110 volt, AC power source. Insert the socket at the other end of the cord into the receptacle located on the calculator.

Turn the ON-OFF switch to "ON" position. Your calculator now is being operated thru "AC" power source, and is being charged at the same time.

HOW TO USE "BATTERY" POWER

If your unit was previously being operated by AC power source, then to use unit on "battery" power, move the ON-OFF switch to "OFF". Disconnect socket from calculator, then turn the ON-OFF switch to "ON" again. Your calculator is now ready to be operated on "Battery" power source.

LOW BATTERY INDICATION

When battery power supply values are reduced to a sufficiently low level to produce erroneous calculations, a special symbol (L) is displayed on the left most digit of the display. Batteries should then be fully recharged. Under normal usage your Bohn S/R will operate efficiently for approximately 4 hours on fully recharged batteries.

GENERAL INFORMATION

All numbers are entered in sign/magnitude format. A true algebraic system is provided so that key sequences reflect precisely the manner in which a problem is written or stated.

EXAMPLE

$$\frac{(-2+3-5) \times -(6)}{-8} = -3$$

Key sequence $-2+3-5 \times -6 \div -8 = -3$

DECIMAL OPERATIONS

When the unit is first turned on, it is automatically set in floating decimal mode.

Entry into the fixed decimal mode is accomplished using a specific key sequence:

•= N where N may be any numeral key from 0-7. Example: for 4 places depress •= 4. You may change the decimal testing by redoing the sequence with another N. However, when returning to the floating decimal, machine must be turned "OFF" and then "ON"

ADDITION AND SUBTRACTION

EXAMPLE:

$$12 + 14 = 26$$

$$\begin{array}{r} 12 \\ + 14 \\ \hline 26 \end{array}$$

ENTER
NUMBERS

1 2
1 4

TOUCH
FUNCTION KEY

C

+

=

C

+

-

=

C

-

CE

=

DISPLAY NOW
READS

0.

12.

26.

0.

3.86

518.86

453.86

0.

610.

844.

0.

845.

- 235. **

EXAMPLE:

$$3.86 + 515.00 - 65.00 = 453.86$$

$$\begin{array}{r} 3.86 \\ + 515.00 \\ - 65.00 \\ \hline 453.86 \end{array}$$

3 . 8 6
5 1 5 *
6 5

EXAMPLE:

$$610 - 845 = - 235$$

610
Error

6 1 0
8 4 4

Move selector switch
to upper position

$$\begin{array}{r} - 845 \\ - 235 \\ \hline \end{array}$$

8 4 5

*Note: Two zeroes are always automatically added by the unit so it is unnecessary in this example to depress the zero key twice, or to depress the decimal key.

**Note: In this example (-) symbol would appear at far left indicating that the number is a (minus) -235. This is a true credit balance total.

MULTIPLICATION AND DIVISION

EXAMPLE:

$$12 \times 14 = 168$$

$$\begin{array}{r} 12 \\ \times 14 \\ \hline 168 \end{array}$$

ENTER
NUMBERS

1 2
1 4

TOUCH
FUNCTION KEY

C
×
=
C
×
=
C

DISPLAY NOW
READS

0.
12.
168.
0.

EXAMPLE:

$$2.67 \times 15.2 = 40.584$$

$$\begin{array}{r} 2.67 \\ \times 15.2 \\ \hline 40.584 \end{array}$$

2 . 6 7
1 5 . 2

×
=
C

2.67
40.584
0.

EXAMPLE:

$$-4 \times 3 = -12$$

$$\begin{array}{r} -4 \\ \times 3 \\ \hline -12 \end{array}$$

4
3

-
×
=
C

0.
-0.
-4.
-12.

EXAMPLE:

$$126 \div 6 = 21$$

$$\begin{array}{r} 21 \\ 6 \overline{) 126} \end{array}$$

1 2 6
6

C
÷
=
C

0.
126.
21.
0.

EXAMPLE:

$$14.36 \div 8.2 = 1.75121951210$$

$$\begin{array}{r} 1.75121951210 \\ 8.2 \overline{) 14.3600000000} \end{array}$$

1 4 . 3 6
8 . 2

÷
=
C
÷
=
C

0.
14.36
1.7512195

Note: In this example the unit has utilized automatic underflow system.

CHAIN CALCULATIONS

EXAMPLE:

$$123.85 \times 346 \times 346.767$$

$$\div 3 \times 14.1 = 69840561.555290$$

	123.85
×	346
<hr/>	
	42852.10
×	346.767
<hr/>	
	14859694.16070
<hr/>	
	4953231.38690
3)	14859694.16070
	4953231.38690
	<hr/>
	3
	14859694.16070
	<hr/>
	3
	4953231.38690
	<hr/>
	14.1
	<hr/>
	69840561.555290

ENTER
NUMBERS

TOUCH
FUNCTION KEY

DISPLAY NOW
READS

								C	0.
1	2	3	.	8	5			×	123.85
				3	4	6		×	42852.1
3	4	6	.	7	6	7		÷	14859694.
							3	×	4953231.3
1	4	.	1					=	69840561.

MIXED CALCULATIONS

EXAMPLE:

$$55 \times 12 \div 22 + 85 - 14 = 101$$

ENTER
NUMBERS

TOUCH
FUNCTION KEY

DISPLAY NOW
READS

								C	0.
5	5							×	55.
1	2							÷	660.
2	2							+	30.
8	5							-	115.
1	4							=	101.

PERCENT CALCULATIONS

EXAMPLE:

First move selector switch to bottom position

6% of 220 = 13.2

ENTER NUMBERS	TOUCH FUNCTION KEY	DISPLAY NOW READS
	<input type="button" value="C"/>	<input type="text" value="0."/>
<input type="text" value=""/> <input type="text" value=""/> <input type="text" value="6"/>	<input type="button" value="%"/>	<input type="text" value="6."/>
<input type="text" value="2"/> <input type="text" value="2"/> <input type="text" value="0"/>	<input "="" type="button" value="="/>	<input type="text" value="13.2"/>

ROUND OFF

When operating in the fixed point mode, results have a 5/4 rounded off.

DISPLAY BLANKING

To conserve on battery life, machine will blank out after 20 seconds. A (-) indicator in the middle of display will appear. To recall the previous display, depress = key.

OVERFLOW

If more than 8 digits are entered an (E) indicator will appear.

If result of problem is more than 8 digits, the machine will show a (□) on far left.

To get correct decimal position, move decimal eight places to right.

UNDERFLOW

Answers will be decimally correct at all times.

RAISING TO A POWER

EXAMPLE:

Move selector switch to upper position

$$3^4 = 81$$

$$3 \times 3 \times 3 \times 3$$

ENTER
NUMBERS

TOUCH
FUNCTION KEY

DISPLAY NOW
READS

C

0.

3

\times^2

9.

\times^2

81.

EXAMPLE:

Move selector switch to upper position

$$2^5 \times 3 = 96$$

$$2 \times 2 \times 2 \times 2 \times 2 \times 3 = 96$$

C

0.

2

\times^2

4.

\times^2

16.

\times

16.

2

\times

32.

3

=

96.

EXAMPLE:

$$1365 \div 2.2^3 = 128.19308$$

$$\begin{array}{r} 128.19308 \\ 10.648 \overline{) .36500000} \end{array}$$

1 3 6 5

C

0.

2 . 2

\div

1365.

2 . 2

\div

620.45454

2 . 2

\div

282.02479

\div

128.19308

CONSTANT MULTIPLIER OPERATION

(Following problems all have .75 as a constant)

EXAMPLE:

$$.75 \times 386 = 289.50$$

$$\begin{array}{r} 386 \\ \times .75 \\ \hline 289.50 \end{array}$$

EXAMPLE:

$$.75 \times 486 = 364.5$$

$$\begin{array}{r} 486 \\ \times .75 \\ \hline 364.50 \end{array}$$

EXAMPLE:

$$.75 \times 1397 = 1047.5$$

$$\begin{array}{r} 1397 \\ \times .75 \\ \hline 1047.75 \end{array}$$

ENTER
NUMBERS

. 7 5
3 8 6

4 8 6

1 3 9 7

TOUCH
FUNCTION KEY

C
= M
× M =
C
× M =
C
× M =

DISPLAY NOW
READS

0.
0.75
289.5
0.
364.5
0.
1047.75

CONSTANT DIVISOR OPERATION

(Following problems all have 8 as a constant)

EXAMPLE:

$$25 \div 8 = 3.125$$

$$\begin{array}{r} 3.125 \\ 8 \overline{) 25.000} \end{array}$$

EXAMPLE:

$$546 \div 8 = 68.25$$

$$\begin{array}{r} 68.25 \\ 8 \overline{) 546.00} \end{array}$$

EXAMPLE:

$$1734 \div 8 = 216.75$$

$$\begin{array}{r} 216.75 \\ 8 \overline{) 1734.00} \end{array}$$

ENTER
NUMBERS

8
2 5

5 4 6

1 7 3 4

TOUCH
FUNCTION KEY

C
= M
÷ M =
C
÷ M =
C
÷ M =

DISPLAY NOW
READS

0.
8.
3.125
0.
68.25
0.
216.75

CALCULATION WITH MEMORY

EXAMPLE:

$$M = 4$$

ENTER
NUMBERS

TOUCH
FUNCTION KEY

DISPLAY NOW
READS

C

0.

4

= M

4.

$$M + 6 = 10$$

C M +

4.

6

=

10.

$$M - 3 = 1$$

C M -

4.

3

=

1.

$$M \times 6 = 24$$

C M \times

4.

6

=

24.

$$M \div 2 = 2$$

C M \div

4.

2

=

2.

Move selector switch to upper position

$$M^2 = 16$$

C M \times^2

16.

SQUARE ROOT

First move selector switch to upper position

EXAMPLE:

$$\sqrt{169} = 13$$

EXAMPLE:

$$\sqrt{170} = 13.038404$$

ENTER
NUMBERS

1 6 9

1 7 0

TOUCH
FUNCTION KEY

C

$\sqrt{}$

C

$\sqrt{}$

DISPLAY NOW
READS

0.

13.

0.

13.038404

RECIPROCAL

First move selector switch to bottom position

EXAMPLE:

$$1/4 = 0.25$$

EXAMPLE:

$$1/7 = 0.1428571$$

4

7

C

$1/x$

C

$1/x$

0.

0.25

0.

0.1428571

SQUARE

First move selector switch to upper position

EXAMPLE:

$$15^2 = 225$$

EXAMPLE:

$$32^2 = 1024$$

1 5

3 2

C

x^2

C

x^2

0.

225.

0.

1024.

MEMORY

ACCUMULATION
OF PRODUCTS TO
A GRAND TOTAL

EXAMPLE:

$$25 \times 23 = 575$$

$$13 \times 15 = 195$$

$$14.2 \times 16 = \frac{227.2}{997.2}$$

ENTER NUMBERS TOUCH FUNCTION KEY DISPLAY NOW READS

C 0.

2 5 × 25.

2 3 = M 575.

1 3 × 13.

1 5 = 195.

+ M = M 770.

1 4 . 2 × 14.2

1 6 = 227.2

+ M = 997.2

VARIED CALCULATIONS

ENTER NUMBERS TOUCH FUNCTION KEY DISPLAY NOW READS

EXAMPLE:

$$4 \times 2 \sqrt{\times} 1 \times$$

4

C 0.

×² 16.

√ 4.

1× 0.25*

*To perform this function, move selector switch from top to bottom position.

CHAIN

EXAMPLE:

$$\frac{1}{\left(\frac{\sqrt{19+17}}{2}\right)^{-5}} = 0.25$$

1 9

1 7

2

5

C 0.

+ 19.

√ 6.

÷ 6.

×² 9.

- 9.

1× 0.25

as above

MAINTENANCE INSTRUCTIONS

This calculator is made up of precise parts such as large scale integrated circuits. Hence radical changes in temperature or humidity are never permitted. The following points must be carefully noted.

1. Do not drop or give a strong shock or vibration to the machine.
2. Power switch must be always "OFF" when power cord is pulled out or to switch power sources between "AC" and "BAT"
3. Direct rays of the sun or a stove, etc. which gives direct heat for long hours must be avoided.
4. When removing dust from the machine, use either neutral cleaner or plastic cleaner. Do not use volatile matter, such as paint thinner or wet cloth.
5. Please put it in the carrying case when traveling.